

**Abstract of the Invention**

A system for regulating an etch process is provided. The system includes one or more light sources, each light source directing light to one or more features and/or gratings on a wafer. Light reflected from the features and/or gratings is collected by a measuring system, which processes the collected light. The collected light is indicative of the dimensions achieved at respective portions of the wafer. The measuring system provides etching related data to a processor that determines the acceptability of the etching of the respective portions of the wafer. The system also includes one or more etching devices, each such device corresponding to a portion of the wafer and providing for the etching thereof. The processor selectively controls the etching devices to regulate etching of the portions of the wafer.

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